10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KCNMA1 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI12061

Product Information

Application	WB
Primary Accession	Q12791
Other Accession	NM_001014797, NP_001014797
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Sheep
Predicted	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Guinea Pig, Horse, Bovine, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	137560

Additional Information

Gene ID	3778
Alias Symbol	BKTM, DKFZp686K1437, KCa1.1, MGC71881, MaxiK, SAKCA, SLO, SLO-ALPHA, mSLO1, SLO1, bA205K10.1
Other Names	Calcium-activated potassium channel subunit alpha-1, BK channel, BKCA alpha, Calcium-activated potassium channel, subfamily M subunit alpha-1, K(VCA)alpha, KCa1.1, Maxi K channel, MaxiK, Slo-alpha, Slo1, Slowpoke homolog, Slo homolog, hSlo, KCNMA1, KCNMA, SLO
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-KCNMA1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	KCNMA1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KCNMA1 (HGNC:6284)
Synonyms	KCNMA, SLO
Function	Potassium channel activated by both membrane depolarization or increase in cytosolic Ca(2+) that mediates export of K(+) (PubMed:14523450, PubMed:29330545, PubMed:31152168). It is also activated by the concentration of cytosolic Mg(2+). Its activation dampens the excitatory

events that elevate the cytosolic Ca(2+) concentration and/or depolarize the cell membrane. It therefore contributes to repolarization of the membrane potential. Plays a key role in controlling excitability in a number of systems, such as regulation of the contraction of smooth muscle, the tuning of hair cells in the cochlea, regulation of transmitter release, and innate immunity. In smooth muscles, its activation by high level of Ca(2+), caused by ryanodine receptors in the sarcoplasmic reticulum, regulates the membrane potential. In cochlea cells, its number and kinetic properties partly determine the characteristic frequency of each hair cell and thereby helps to establish a tonotopic map. Kinetics of KCNMA1 channels are determined by alternative splicing, phosphorylation status and its combination with modulating beta subunits. Highly sensitive to both iberiotoxin (IbTx) and charybdotoxin (CTX). Possibly induces sleep when activated by melatonin and through melatonin receptor MTNR1A- dependent dissociation of G-beta and G-gamma subunits, leading to increased sensitivity to Ca(2+) and reduced synaptic transmission (PubMed:32958651).

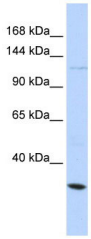
Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Widely expressed. Except in myocytes, it is almost ubiquitously expressed.

References

Cambien,B.,(2008)Int.J.Cancer123(2),365-371ReconstitutionandStorage:Forshorttermuse,storeat2-8Cupto1week.Forlongtermstorage,storeat-20Cinsmallaliquotstopreventfreeze-thawcycles.

Images



WB Suggested Anti-KCNMA1 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:62500
Positive Control: Hela cell lysate